

CLAIM AMENDMENTS

1 1. (original) A vascular prosthesis or tissue patch
2 with a microporous finely fibular structure of a biocompatible
3 polymer, especially a (previously presented) polyurethane, polyamide,
4 polysulfone, polyester, isotactic polypropylene, polynitrile and/or
5 polyvinylchloride, or mixtures thereof and/or their copolymers,
6 characterized by an elasticity which has been produced by a
7 definitive stretching (extension) with a degree of extension of 30
8 to 250%, preferably 60 to 125%, and subsequent relaxation.

1 2. (currently amended) A method of ~~improving the E-~~
2 ~~modulus of making a~~ vascular prosthesis or tissue web [[s]] of
3 biocompatible polymer, especially of polyurethane, polyamide,
4 polysulfone, polyester, isotactic polypropylene, polynitrile and/or
5 polyvinylchloride, (previously presented) mixtures thereof and/or
6 their copolymers, with a microporous finely fibular structure,
7 characterized by a definitive stretching (extension) with a degree
8 of extension between 30% and 150%, preferably between 60
9 and (previously presented) 125%, and subsequent relaxation.

1 3. (original) The method according to claim 2
2 characterized in that the pore size of the vascular prosthesis or
3 of the tissue patch before the stretching is less than the extended
4 dimension expected prior to stretching and beyond which the
5 vascular prosthesis or tissue patch does not retract.

1 4. (previously presented) The method according to claim
2 2 characterized in that the stretching is an uniaxial or biaxial
3 stretching.

1 5. (previously presented) The method according to claim
2 2, characterized in that the vascular prosthesis or the tissue
3 patch prior(previously presented)to the stretching is soaked in a
4 water soluble polyphysiological substance, preferably
5 polyvinylalcohol (PVA), polyvinylpyrrolidone or gelatine (collagen)
6 which is completely or partially drawn into the vascular prosthesis
7 or the tissue patch, preferably on the outer side.

1 6. (previously presented) The method according to claim
2 2, characterized in that the vascular prosthesis is tubular and for
3 stretching a requisite pressure is applied from the interior with a
4 gaseous medium, preferably air or N₂, or with a liquid
5 medium.(previously presented)

1 7. (original) The method according to claim 6
2 characterized in that to avoid leakage, a yieldable preferably
3 elastic auxiliary body is introduced into the vascular prosthesis
4 to be stretched and is thereafter pressurized with a pressure
5 applying medium.

1 8. (previously presented) The method according to claim
2 5, characterized in that the stretching is carried out with an
3 auxiliary body capable of mechanical size adjustment upon which the
4 tissue patch is previously clamped or which is introduced into the
5 tubular prosthesis.

1 9. (previously presented) The method according to claim
2 5, characterized in that for widening a tubular vascular
3 prosthesis, a drawing mandrel is used.

1 10. (previously presented) The method according to claim
2 2, characterized in that to produce the vascular prosthesis or the
3 tissue patch at least one aliphatic and/or at least one
4 cycloaliphatic diisocyanate is reacted with a macrodiol of the
5 polycarbonate type or of the polyester, (previously
6 presented) polyether, polysiloxane or polysulfone type with an
7 average molecular weight of 500 to 6000, whereby the ratio of NCO
8 terminal groups of the prepolymer to OH groups of the chain
9 lengthening agent is 1.01 :1 to 1.05:1 and the polymer obtained,
10 optionally aftertreatment with a reagent for deactivating NCO
11 groups which may still be present, is subjected to a molecular
12 weight fractionation in which the low molecular weight polyurethane
13 fraction making up 10% to 50% by weight of the polymer (previously
14 presented) is separated off and discarded and the remaining high
15 molecular weight fractionation is recovered as the biocompatible
16 polyurethane with improved properties.